

Use of animals for scientific purposes at the Paris Brain Institute

The use of animal models in research, particularly in the field of biomedicine, is a subject prompting major legitimate public concern.

Teams from the Paris Brain Institute use all available methods for tackling nervous system diseases, from computational models to studies involving humans, and also animal models. The Paris Brain Institute is committed to maximum transparency and communication on its work and objectives in terms of meeting regulatory obligations, the quality of research carried out in its laboratories, and its proactive approach to improving research practices.

Missions and commitments

The Paris Brain Institute's missions are to:

- foster scientific advances on brain functioning and development
- support ambitious research projects on nervous system diseases
- promote the development of therapeutic solutions for treating patients

The Paris Brain Institute is thus committed to improving basic knowledge of the nervous system and its disorders by producing quality scientific data that are:

- credible and thus take account of the reproducibility of results obtained and the transparency of methods chosen to obtain them (*)
- original and thus respond to a relevant and unresolved scientific question
- communicable, comprehensible and universally accessible
- strictly compliant with any applicable regulations.

The Paris Brain Institute constantly reviews, develops and improves its practices to ensure the quality of its research. It offers access to experts and equipment through its Preclinical Functional Exploration Platform, which provides all research teams with very high quality support. This platform is a center of excellence recognized by the global scientific community. It is used by external research teams, thus helping improve the quality of scientific research in the public interest through partnership and pooling of expertise.

() Research projects conducted at the Paris Brain Institute involve the use of various models including computational, in vitro and animal models, as well as studies involving human subjects. Scientific teams are required to adopt the most appropriate models to ensure a pertinent response to the scientific questions raised. Individual scientific methods can only provide a limited response unless considered alongside other methods.*

Regulatory obligations

Any research projects that include animal models are subject to EU Directive 2010/63/EU, which is transposed into French law by Decree 2013-118 of February 1, 2013 and five orders. The aim of all regulatory authorizations is to ensure that conditions for accommodating and working with animals meet appropriate standards in line with the 3Rs principle:

- Replacing animal models
- Reducing the number of animals included
- Refining and improving experimental conditions

The framework defined by this legal mechanism also covers ethical authorizations for research projects, attendance of training, monitoring of animal welfare by the animal welfare unit (SBEA) and the requirement for a veterinarian to be present.

All research projects conducted at the Paris Brain Institute incorporate and adhere to these principles.

1/ Alternative methods

Many scientific questions can be resolved without the use of animals. When formulating research projects, Paris Brain Institute teams consider whether alternative methods may be used. They proactively develop computational approaches and models using stem cells, and perform some studies on human subjects. The Paris Brain Institute also supports the development of alternative methods through internal calls for proposals.

2/ Staff training

Any individuals working with animals must pass compulsory regulatory training and undertake to attend appropriate continuing professional development throughout their careers. This is delivered by accredited bodies. Project managers are responsible for ensuring that their team members have the appropriate skills.

The team at the Paris Brain Institute Preclinical Functional Exploration Platform ensures that staff are proficient in the basic skills for handling relevant species. If this condition is not met, individuals are not authorized to work with animals and are trained until able to work fully independently.

3/ Animal welfare

The Paris Brain Institute has set up an animal welfare unit which monitors research projects and educates/advises staff on how to improve practices with animals. Visits to the animal center and laboratories are organized several times per year to perform audits and propose any measures to be put in place. This unit includes around 30 voluntary members offering a wide range of complementary skills: animal technicians, researchers, engineers, staff from the Paris Brain Institute platforms and the veterinarian.

4/ Rehabilitation of animals

The rehoming of laboratory animals is an initiative underpinned by European and French legislation (Art. 214-112). The Paris Brain Institute has made it a priority. Rehabilitation is subject to a strict legal framework both in terms of rehoming procedures and animals that can be rehabilitated. Since 2014, the Paris Brain Institute has been working with two charities to rehome, where possible, any species it has used to meet its research requirements.

Inspections

Prior to initiating research

- Certifications of premises as user establishments by the Departmental Directorate for the Protection of Populations (French Ministry of Agriculture and Food)
- Projects authorized by an ethics committee under the auspices of the French Ministry of Higher Education, Research and Innovation composed of qualified individuals
- Inspection by the animal welfare unit which provides advice on authorization requests

During and after research:

- Internally:
 - by the animal welfare unit: monitoring and inspection of procedures and accommodation conditions. It provides its comments on retrospective assessments.
 - by the skills manager who ensures that staff are trained appropriately for declared activities.
- Externally by the Departmental Directorate for the Protection of Populations (French Ministry of Agriculture) which performs spot checks as part of the authorization process managed by the French Ministry of Higher Education, Research and Innovation

Individual and collective responsibility

The Paris Brain Institute expects everyone to do their bit and keep a close eye on the situation, from the top level of the organization to the project managers and ultimately, the end user.

In addition to compulsory regulatory training, new starters are systematically educated on animal welfare. Each project manager is responsible for his/her team and each team member is responsible for ensuring that his/her work is compliant with regulations and the framework defined by specific projects. Any individuals found to have breached the rules are penalized with a maximum penalty of them being prohibited from performing their duties.

In addition to the project assessment committee, a Paris Brain Institute internal ethics committee has been set up to monitor the ethics of all the Institute's scientific practices.

For further information

- <https://www.recherche-animale.org/>
- <http://agriculture.gouv.fr/animaux-utilises-des-fins-scientifiques>